

WHAT IS CLAIMED IS:

1        1. A method of manufacturing an inkless fingerprint  
composition and disposable applicator therefore  
comprising:

5            a) providing a first and second  
substantially nonpermeable foil strips, the  
strips have substantially the same width with  
the first strip being slightly longer than the  
second strip to provide an extended pull-tab  
when the strips are superimposed on one  
10        another;

15            b) providing an inkless fingerprint  
composition which is semisolid at ambient  
temperature, the composition including a color  
former which when applied to a person's  
fingerprint area and deposited onto a proper  
substrate in the presence of a developer forms  
a permanent colorant product representing the  
person's fingerprint;

20            c) evenly distributing a thin layer of  
the composition on a surface of one of the  
strips while leaving a border around the  
perimeter of the strip without the  
composition; and

25 d)placing the other strip over said one  
strip so that the composition is sandwiched  
between the strips with a peripheral border of  
both strips and the peel tab area being  
unencumbered with the composition.

1 2. The method of claim 1 wherein the composition  
face border is about 1/16" in width.

1 3. The method of claim 1 wherein the inkless  
composition is heated to a liquid phase prior to  
distributing the composition onto the strip.

1 4. The method of claim 1 wherein the composition  
includes a nonstaining solvent compatible with the color  
former.

1 5. The method of claim 4 wherein the color former  
comprises one or more metal salts selected from the  
groups listed in the periodic table under columns 5A, 6A,  
7A, 8A, 1B, 2B, 3B, 4B, 5B, and 7B.

1 6. The method of claim 5 wherein the color former  
is selected from one or more of the following transition  
metal salts: ferric chloride, titanium, vanadium,  
chromium, magnesium, cobalt, nickel, copper, zirconium,  
5 zinc, niobium, molybdenum, silver, tantalum and tungsten.

1           7.    The method of claim 6 wherein the solvent comprises one or more reagents from the following group: glycol, glycol fatty acid esters, fatty acids, and fatty alcohols.

1           8.    The method of claim 7 wherein the solvent is selected from one or more of the following group: glyceryl lanolate, glyceryl laurate, glyceryl myristate, glyceryl oleate/palmitate/ricinoleate, polyethylene glycol castor oils/cocoates/isosterates, polyethylene glycol lanolates, stearyl alcohol, myristyl alcohol, cetyl palmitate, cetyl alcohol and bees wax (a blend of fatty acid esters).

1           9.    The method of claim 1 wherein the composition is in a liquid phase at a temperature of about 110° F and above.

1           10.   The method of claim 1 wherein the composition includes the developer and a sufficient amount of chelating agent capable of binding with the color former to substantially prevent the color former and developer from reacting in solution while permitting such reaction when the solution is applied to a person's fingerprint area and deposited onto a paper substrate.

1           11. The method of claim 10 wherein the developer is  
selected from one or more of the group of:

2,4,6 - Trihydroxy Benzoic Acid

3,4,5 - Trihydroxy Benzoic Acid

5           Dimenthyl Glyoxime

Rubeanic Acid

Potassium Ferrocyanide

Sodium Ferrocyanide

Pyrogallol

10           Hydroxyquinoline and its derivatives

Pyrocatechol

Propyl Gallate

Resorcinol

$\beta$ -Resorcylic Acid

15           Tiron (4,5 - Dihydroxy-m-Benzene Disulfonic  
acid Disodium Salt)

Gentisic Acid

Procatechuic Acid

Phloroglucinol

20           Tannic Acid

Sodium Tetrathionate

Sodium Thiosulfate

Diethyldithiocarbamic Acid

2-pyrrolidinecarbodithoic Acid

1           12. The method of claim 11 wherein the chelating  
agent is a carboxylic acid.

1           13. An inkless fingerprint composition and  
disposable applicator therefore comprising:

5           a) first and second substantially  
nonpermeable foil strips, the strips have  
substantially the same width with the first  
strip being slightly longer than the second  
strip to provide an extended pull-tab when the  
strips are superimposed on one another; and

10           b) a thin layer of an inkless fingerprint  
composition sandwiched between the  
superimposed strips leaving a small peripheral  
border and the pull-tab area free of the  
composition, the composition including a  
solution of a color former which is semisolid  
15 at ambient temperature, the color former being  
characterized by forming a perceivable  
colorant product representing a person's  
fingerprint when applied to the person's  
fingerprint area and deposited onto a paper  
20 substrate in the presence of a developer.

1           14. The invention of claim 13 where each of the foil strips comprise Mylar having a thickness within the range of about .001" to .005".

1           15. The invention of claim 13 wherein the color former comprises one or more metal salts selected from the groups listed n the periodic table under columns 5A, 6A, 7A, 8A, 1B, 2B, 3B, 4B, 5B, and 7B.

1           16. The invention of claim 15 wherein the color former is selected from one or more of the following transition metal salts: ferric chloride, titanium, vanadium, chromium, magnesium, cobalt, nickel, copper, 5 zirconium, zinc, niobium, molybdenum, silver, tantalum and tungsten.

1           17. The invention of claim 16 wherein the solvent comprises one or more reagents from the following group: glycol, glycol fatty acid esters, fatty acids, and fatty alcohols.

1           18. The invention of claim 17 wherein the solvent is selected from one or more of the following group: glyceryl lanolate, glyceryl myristate, glyceryl oleate/palmitate/ricinoleate, polyethylene glycol castor 5 oils/cocoates/isosterates, polyethylene glycol lanolates, stearyl alcohol, myristyl alcohol, cetyl palmitate, cetyl alcohol and bees wax (a blend of fatty acid ester).

1           19.     The invention of claim 13 wherein the  
composition is in a liquid phase at a temperature of  
about 110° F and above.

1           20.     The invention of claim 13 wherein the  
composition includes the developer and a sufficient  
amount of chelating agent capable of binding with the  
color former to substantially prevent the color former  
5 and developer from reacting in solution while permitting  
such reaction when the solution is applied to a person's  
fingerprint area and deposited onto a paper substrate.

1           21.     The invention of claim 13 wherein the  
composition free border is about 1/16" in width.

1           ~~22.~~    A method of manufacturing a nonstaining  
fingerprint composition and disposable applicator  
therefore comprising:

5                   a)   providing a first and second  
substantially nonpermeable foil strips, the  
strips have substantially the same width with  
the first strip being slightly longer than the  
second strip to provide an extended pull-tab  
when the strips are superimposed on one  
10           another;

b) providing a nonstaining fingerprint composition which comprises one or more alcohol soluble dyes in one or more fatty acid esters which have at one hydroxyl group available;

c) evenly distributing a thin layer of the composition on a surface of the first strip while leaving a border around the perimeter of the strip without the composition; and

d) placing the second strip over said first strip so that the composition is sandwiched between the strips with a peripheral border of both strips and the peel tab area being unencumbered with the composition.

23. The method of claim 22 wherein the composition is heated to a liquid phase prior to distributing the composition onto the strip.

24. The method of claim 23 wherein the dye in the composition is metal complexed.

25. The method of claim 23 wherein the metal is selected from the group consisting of iron, chromium, copper and zinc.



1                    26.    The method of claim 22 wherein at least one  
fatty acid in the composition is glycerol  
monoricinoleate.